

Evaluation Process for Solid Waste Management

Iowa Department of Natural Resources

Advisory
Committee

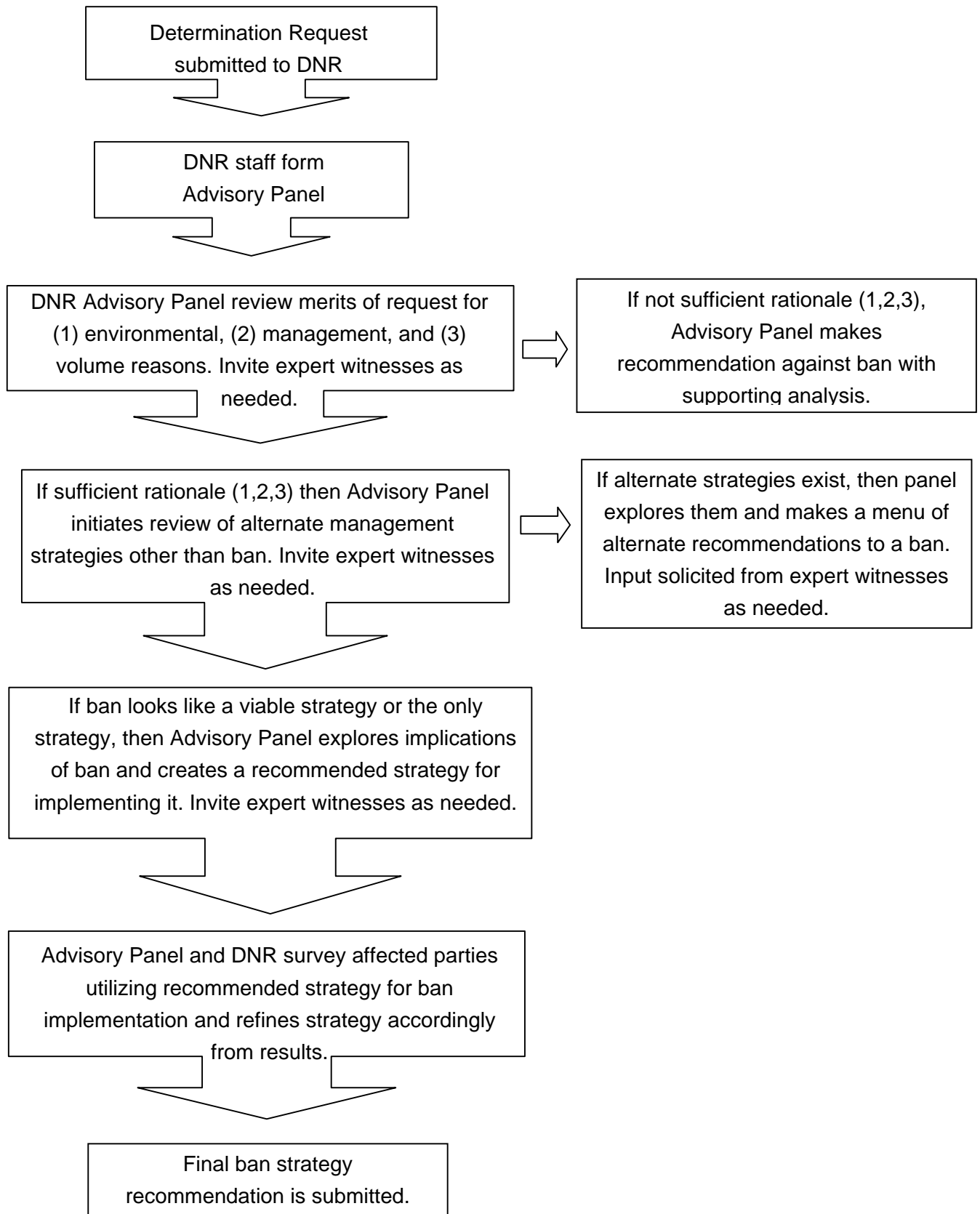
Determination
Procedure for
Solid Waste
Disposal Bans

March 2003

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Procedure Flow Chart



Introduction

On occasion, disposal of a specific waste in landfills is called into question. Determining whether an exception to standard disposal practices is warranted is a complex question and one the Advisory Committee of the Determination Procedure for Solid Waste Disposal Bans has been meeting over the last five months to address. The result of their efforts, contained in this document, is a well-defined process for addressing whether a specific solid waste should be disposed of in a landfill or be managed in another fashion.

Many times when the means in which a certain solid waste is being managed is called into question, the question being posed is, “should it be banned from landfills?” While this is how the issue arrives at the Department of Natural Resources (DNR), this is not the actual question that needs to be answered. As professionals in solid waste management, the members of the Advisory Committee want to make the point that all solid waste must go somewhere; a landfill ban only redirects the ultimate destination of the waste. In that regard, the real underlying question is, “how should we manage this solid waste?” So when reviewing the procedure, keep in mind that this latter question is the focus.

Prior to development of this procedure, there was no prescribed means for establishing the best course of action for Iowa. While divergent opinions and positions will always be part of any public discussion, this Determination Procedure is designed to set forth standard guidance from which the Department of Natural Resources might make a recommendation. This recommendation would come after considering consistent elements and all possible alternatives to a statewide solid waste disposal ban in Iowa.

While every type of waste has its own characteristics, which make it unique and must be considered in the final analysis, the Advisory Committee has standardized the approach used to reach the decision. The procedure establishes a framework for decision-making through the determination process. It defines decision points, responsible parties, and elements that must be considered in any determination.

The determination procedure establishes a transparent process, consistent with the core responsibilities of the Department of Natural Resources. Stakeholders and the general public will become aware of the depth of research and consideration required to reach a recommendation regarding banning a solid waste from landfills. The procedure also allows participation in the process by stakeholders and the general public.

This procedure does not assume that a ban is a desirable or an undesirable outcome. If the procedure results in a final determination that recommends a ban, then it is assumed the

recommendation will move into the legislative or administrative rules process for the State of Iowa.

This procedure is the product of a five-month deliberative process created and sponsored by the Energy and Waste Management Bureau of DNR that involved representatives of key stakeholder groups. The project was funded by the Solid Waste Alternatives Program (SWAP). More on the process and the role of the working group can be found on page 16 of this document.

Rationale

At the beginning of 2003 there were no new total bans of materials from landfills in Iowa that were statewide. Some materials, notably whole tires and lead-acid batteries, have long been subject to a ban on disposal across the state. Certain local jurisdictions in the state have implemented bans of specified materials from their landfills, sometimes after varied procedures to determine the need, alternatives, and impact. Neighboring states may or may not have implemented statewide bans on certain materials. These bans have mixed reviews regarding their success. Typically, the process through which decisions were reached on these bans was created as the process unfolded.

One thing is certain: no state or local jurisdiction has developed deliberative guidance for a solid waste disposal ban determination. Only one association has given the issue the attention required to develop a position. The Solid Waste Association of North America (SWANA) and its Iowa Chapter, Iowa Society of Solid Waste Operators (ISOSWO), have developed a recommended procedure that is in keeping with the priorities of their membership. This became the starting point for the Advisory Committee's deliberative process.

There is a need for a determination process that fits for Iowa. The changing conditions and emerging issues of solid waste disposal may require the consideration of landfill bans for some items. Electronics, such as cathode ray tubes (CRTs), and used oil filters are the subject of action in other states. Still, those states have reached their decisions without applying a formalized procedure to forecast the impact of these bans.

In looking to the future, the rationale for banning any material should address one of three major concerns. These concerns are ordered by importance according to the committee, and reflect the same order of importance reflected in a survey of registered voters.

1. **Environmental.** Impact on human health and the environment. An example of this would be the negative environmental and health effects of lead compounds and acid which resulted in the state landfill ban on lead-acid batteries.
2. **Management.** Difficulty of managing material at a landfill or operational problems, including worker health and safety caused by disposing of the material at a landfill. An example of this would be the state landfill ban on the disposal of whole tires because they "float" to the surface of a landfill after being buried.
3. **Volume.** Significant disposal air-space savings could be achieved by banning the material from disposal. An example of this would be the state landfill ban on yard waste, which in 1991 was estimated to make up 12-14% of landfilled waste.

The Iowa DNR is not currently seeking to implement landfill bans of any material. However, the Department is constantly seeking to improve solid waste management, and therefore has developed this process for determining if and how waste should be banned from landfills statewide. By working with stakeholders through the complexities of the array of considerations in advance, the procedure will contribute to a fair and timely determination should one be requested.

Premises

In developing the Determination Procedure, the stakeholder working group upheld certain premises that emphasize the importance and value of balanced considerations. The premises emerging from their deliberations frame the approach to decision-making and guide DNR in its procedural activities.

Fair Consideration – The systemic review of feasibility and impacts will, as much as possible, ensure a balance in the information reviewed. It will include perspectives of the array of stakeholders. It will look at impacts on residents, business, government, and the environment of the waste stream and Iowa's culture. To this end, the Advisory Panel conducting each review will be carefully selected to ensure a representative balance.

Information-based – Data, experience, and other relevant information will serve as the driving force in the review of feasibility and impacts. To ensure the necessary quality of information, a multi-disciplinary approach should be used to collect and analyze the data presented to the Determination Panel for review. Expert witnesses should be utilized as needed. The recommendations arising from the review are expected to be backed with supporting information.

Real-world focused – The decisions ultimately must be applicable within the context of Iowa's environment, culture, economy, and government. The Determination Procedure acknowledges it is not always possible to exactly forecast the future of the state, but best efforts should be made by the Advisory Panel and DNR in all considerations related to implementing the decisions.

Democratic Access – Requests for determination using the prescribed request procedures should allow democratic access for Iowans.

Procedure

Request for Determination Submitted

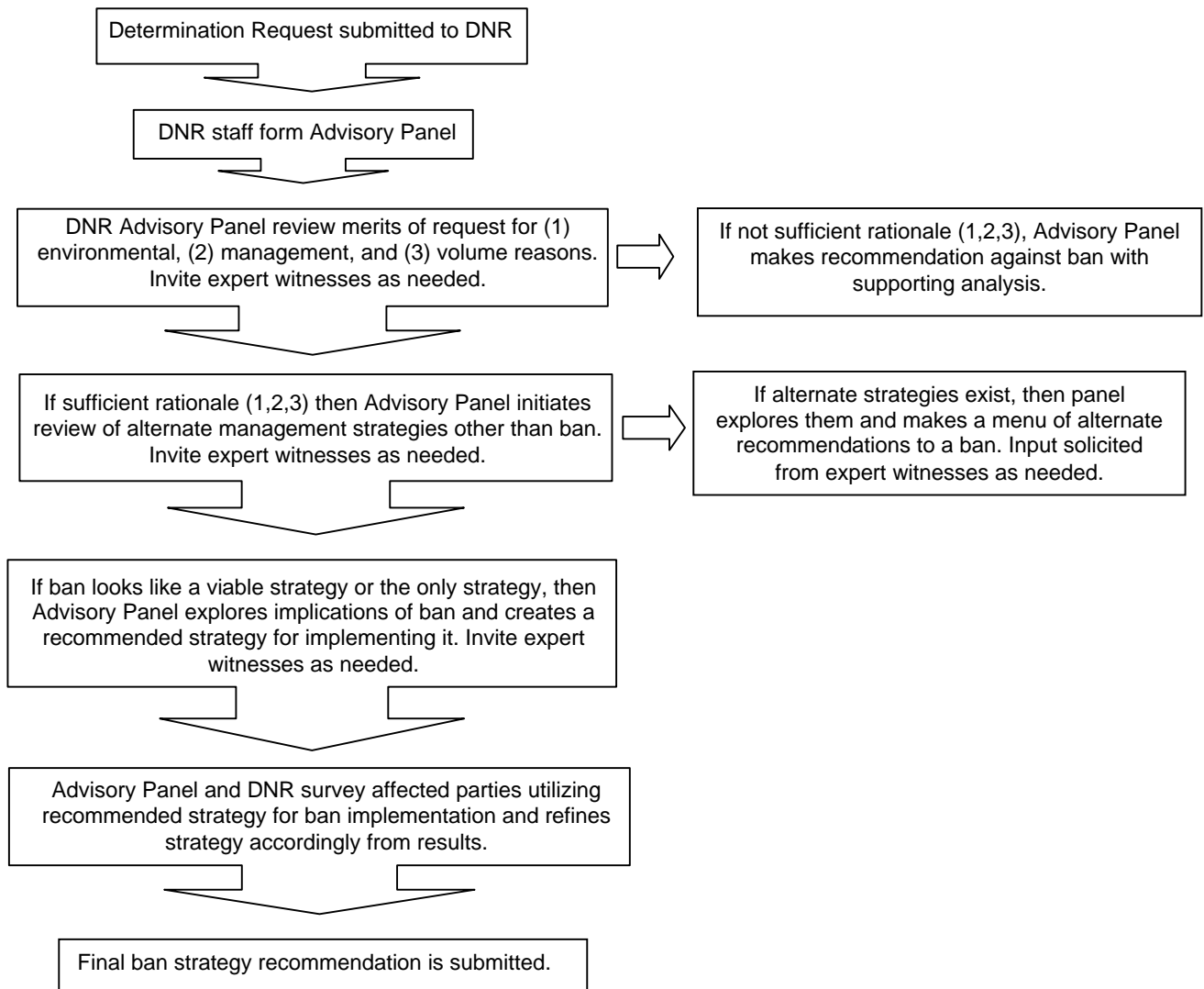
- Eligible Applicants:
The Governor, a legislative committee, and the DNR Director are eligible to initiate the Request for Determination Procedure.
- Relevant Information
The DNR and advisory panel will be greatly aided if the following information is submitted:
 - Include background information about the driving constituency.
 - Include information about what specific material is being requested to be banned from landfills.
 - Include a rationale explaining why the material should be banned from landfills. This rationale will include whether the material causes environmental, management, or volume concerns.
 - Include the applicant's analysis of how a ban might be implemented and its potential impacts, which may include economic, environmental, management, volume, and market impacts.
 - Include the applicant's assessment of the impacts of taking no action.

Systemic Review of Feasibility and Impacts by Advisory Panel

- The DNR Director will initiate the Systemic Review.
 - The DNR Director will direct staff to form a representative advisory panel and initiate the review.
- It will be the responsibility of the Advisory Panel to examine the feasibility and impacts of a material ban and present their recommendations to the DNR Director for the department's final recommendation.
- The designated staff in the Energy and Waste Management Bureau will serve as the coordinator/manager of the Systemic Review and lead the Advisory Panel.
- The Advisory Panel will be constructed by DNR staff and consist of a sufficient number of people to form a representative body of affected stakeholders. It is suggested that the advisory panel be no greater than 15 people. Suggested representatives are:

- o Generators
- o Producers (manufacturers)
- o Haulers
- o Solid waste disposal operators
- o Processors
- o Distributors
- o Government agencies, state, and local
- o Regulatory agencies
- o Citizens

Procedure Flow Chart



Issues to Address when Proceeding through the Flow Chart

The following tasks represent the potential list of subject areas to be addressed when evaluating a waste management methodology for the material in question. The tasks listed may need to be modified based on the specific material being evaluated.

- Definition of the material(s) the proposed ban will cover.
- Define the current situation statewide for the proposed banned material.
 - o Determine how much is produced annually in Iowa.
 - o Determine whether the amount is increasing, staying the same, or decreasing, analyzing trends and projections.
 - o Determine whether the material is found across the state in proportion to the population and/or geography.
 - o Determine how bordering states handle the proposed banned material.
 - Identify potential for impact of displacement of materials across borders.
 - Determine impacts of other states' bans on this material, if any.
 - o Determine who generates the material.
 - o Determine how material is currently handled.

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 - Determine who generates the material.
 - Determine how material is currently handled.
 - o Source Separation
 - o Collection
 - o Transportation
 - o Landfill
 - o Other
 - Determine what currently happens to the material.
 - o Recycle
 - o Disposal
 - o Trends

- Identify and solicit level of awareness from stakeholder groups of the problem and associated issues.
 - o Generators
 - o Haulers
 - o Solid waste disposal operators
 - o Interest groups
 - o General public
 - o Local governments
- Identify and solicit impact data and potential solutions or alternatives from key stakeholders, including but not limited to the following.
 - o Generators
 - o Producers (manufacturers)
 - o Haulers
 - o Solid waste disposal operators
 - o Processors
 - o Distributors
 - o Government agencies, state, and local
 - o Regulatory agencies
- Identify alternative management methods to handle reuse, recycling, or disposal of the material.
 - o Impact on the collection and transportation infrastructure of the material to a site for processing and reclamation in accordance with regulations or recognized standards.
 - o Availability of vendors to accept the material and process for reclamation and/or re-use and do so in accordance with environmentally sound practices.
 - o Determine existing and potential capacity to handle the estimated quantities of the proposed banned material. Determination of capacity should include the potential of new markets.
- Determine level of convenience including fees, distance, operating, and potential revenues associated with alternative management methods as a measure of potential compliance for various stakeholders.
 - o Generators, individual and business
 - o Producers
 - o Haulers
 - o Solid waste facility operators
 - o Processors
 - o Distributors
 - o General public, if applicable

- Identify need for education of generators regarding separating the material, properly arranging for collection, transporting, alternative management, and non-compliance penalty. If possible the annualized cost for educational outreach should be included.
- Identify need for education of other stakeholders.
- Determine DNR resources needed to ensure compliance by generators, haulers, landfills, and alternative management vendors.
- Determine authority and enforcement procedures.
- Determine infrastructure components required to separate, collect, store, and transport for processing the material.
- Determine potential market impacts.
 - o Determine options for new or expanded markets
 - o Determine expected impacts on the market due to change in quantity or type of materials or products in the market.
 - o Anticipate the future use and production of the material, e.g. whether manufacture will be discontinued.
 - o Determine useful life of original material and of recycled product.
- Determine how much of the infrastructure must be in place prior to implementing a ban.
 - o Determine how much of infrastructure anticipated to be needed is currently in place.
 - o Outline a plan for increasing infrastructure capacity, if needed.
- Determine impact on illegal dumping.
 - o With a ban
 - o With no action
 - o With an alternative management method
- Determine impact of a management strategy or ban in terms of reduced, increased, or level costs for stakeholders over the short and long term.
 - o General public, individuals and businesses
 - o Manufacturers
 - o Generators
 - o Haulers
 - o Solid waste facility operators
 - o Recyclers
 - o Alternative management vendors
 - o DNR
 - o Local government
- Determine the impact of no action in terms of reduced, increased, or level costs for stakeholders over the short and long term.

- o General public, individuals and businesses
 - o Manufacturers
 - o Generators
 - o Haulers
 - o Solid waste facility operators
 - o Recyclers
 - o Alternative management vendors
 - o DNR
 - o Local government
- If possible, quantify environmental impacts of no action and environmental impacts of utilizing an alternative management method or banning the material.
- If possible, quantify the health impacts of no action and health impacts of utilizing an alternative management method or banning the material.
- If possible, quantify management impacts of no action and management impacts of utilizing an alternative management method or banning the material.
- If possible, quantify volume impacts of no action and volume impacts of utilizing an alternative management method or banning the material.
- Identify and determine a most likely option to manage the proposed material based on the data and information gathered in this procedure to be weighed in deliberation against the option of taking no action on the material.
 - o Determine percentage of compliance achievable.
 - o Identify handling of the material.
 - o Determine a ban implementation schedule.
 - o Determine the schedule for periodic evaluation of the management method to consider the following.
 - Effectiveness
 - Diversion rate
 - Compliance
 - Cost
 - Change in the product/material
 - Market consequences
 - Intended impacts
 - Unintended impacts

Public Input

- Public testimony and input will be sought by the Advisory Panel prior to developing its recommendation.
 - o The Advisory Panel will establish a time frame for public input.
 - o The Advisory Panel will publish notice of the proposed material ban and solicit comment in a structured manner.
 - o Public input will be in the form of written or electronic communication.
 - o The Advisory Panel will consider public input in its deliberations in balance with the remaining elements of the Panel's review.
- The Advisory Panel or DNR may survey affected parties utilizing the recommended strategy for ban implementation and refine strategy accordingly from the results

Recommendation and Report to DNR Director by Advisory Panel

- A report to the DNR Director will be prepared by the DNR and reviewed by the Advisory Panel before submission to the Director.
 - o The report will state the Panel's recommendation in a summary statement at the beginning of the document.
 - o The report will include the rationale for the recommendation, including supporting data and information obtained in the Systemic Review of Feasibility and Impacts.
 - o If feasible the final report will include the collection of public input documents.
 - o If requested, the Panel will develop a presentation to the Director of DNR and be prepared to respond to questions.

Final Determination Recommendation by DNR

- DNR will issue the Final Determination Recommendation.
 - o The recommendation will be communicated to the Governor's office or the committee submitting the Request for Determination.
 - o The decision will be available to the public.

Process and Advisory Committee

This Determination Procedure for Solid Waste Disposal Bans was developed in a five-month process that integrated an array of stakeholders in the deliberations. The Procedure was the product and result of a cumulative process to research and analyze government and non-government policies and procedures on landfill bans, stakeholder feedback, and testing the proposed procedure's effectiveness through a statewide survey that applied the Procedure to a hypothetical ban of used oil filters.

A transparent and participative process was fundamental in ensuring all perspectives and interests were considered in developing the procedure drafts. Key stakeholders were consulted and briefed on the process. Most important, an Advisory Committee of twenty stakeholders representing the array of public, private, and nonprofit entities provided ongoing guidance and input into the content of the Procedure. Their insights added value to the document and their discussion of differing priorities and interests ensured a fair and comprehensive Procedure emerged. The Advisory Committee met five times and conscientiously completed review and comment between meetings.

Advisory Committee to Develop a Determination Procedure for Solid Waste Disposal Bans

- Sara Bixby, Foth & Van Dyke, Representing ISOSWO, Des Moines
- Dawn Carlson, Petroleum Marketers & Convenience Stores of Iowa, West Des Moines
- Konni Cawiezell, Iowa League of Cities, Des Moines
- Dave Cretors, Iowa Department of Economic Development, Des Moines
- Marie DeVries, East Central Iowa Council of Governments, Cedar Rapids
- Mike Fairchild, Metro Waste Authority, Mitchellville
- Leslie Goldsmith, Prairie Solid Waste Agency, Creston
- Brent Hazelett, Filter Manufacturers Council, Research Triangle Park, NC
- George Hennessey, Absolute Disposal, Cedar Rapids
- Curtis Hill, Waste Management, Des Moines
- Elizabeth Horton-Plasket, Iowa Environmental Council, Des Moines
- Ellsworth Jeppeson, BV Recycling Center, Storm Lake
- Dewayne Johnson, Iowa Recycling Association, Des Moines
- Fred Kesten, Iowa Waste Exchange, Region XII Council of Government, Carroll
- Bob Mulqueen, Iowa Association of Counties, Des Moines

- Jeff Myrom, DNR Waste Management Bureau, Des Moines
- Andy Ockenfels, City Carton Recycling, Iowa City
- Dan Stipe, DNR Field Office 4, Atlantic
- Clay Swanson, DNR Field Office 2, Mason City
- Bob Walters, Iowa Gold Distributing, Central City

Development of the Determination Procedure was conducted by State Public Policy Group, Des Moines, Iowa, under contract with the Iowa Department of Natural Resources. The project was funded by the Solid Waste Alternative Program (SWAP).